

Claims:

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1. Water-soluble, preferably powdered polymer compositions which can be obtained by continuous polymerization of at least one unsaturated monomer, at least one parameter biasing the polymerization being varied according to a recurrent pattern.
 2. The polymer compositions according to claim 1, characterized in that said pattern is an oscillation about a mean value which can be selected at random.
 3. The polymer compositions according to claim 2, characterized in that the oscillation is harmonic or anharmonic and preferably undamped.
 4. The polymer compositions according to any of claims 1 to 3, characterized in that at least one of the following parameters is subject to variation:
 - the concentration of monomer(s),
 - the amount of catalyst,
 - the amount of molecular weight modifier,
 - the pH value of the monomer solution, and/or
 - the composition of the monomer solution.
 5. The polymer compositions according to any of claims 1 to 4, characterized in that the polymerization is effected on a moving support.
 6. The polymer compositions according to any of claims 1 to 5, characterized in that said compositions are co- or terpolymer compositions.

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Sub A1 cont

7. The polymer compositions according to any of claims 1 to 6, characterized in that said compositions are non-ionogenic, anionic or cationic polymer compositions.
8. Use of the polymer compositions according to any of claims 1 to 7 in the flocculation and/or dewatering of suspensions.
9. A process for the continuous production of preferably water-soluble polymer compositions by polymerizing at least one unsaturated monomer, characterized in that at least one parameter biasing the polymerization is varied according to a recurrent pattern.
10. The process according to claim 9, characterized in that said pattern is an oscillation about a mean value which can be selected at random.
11. The process according to claim 10, characterized in that the oscillation is harmonic or anharmonic and preferably undamped.
12. The process according to any of claims 9 to 11, characterized in that at least one of the following parameters is subject to variation:
 - the concentration of monomer(s),
 - the amount of catalyst,
 - the amount of molecular weight modifier,
 - the pH value of the monomer solution, and/or
 - the composition of the monomers employed.
13. The process according to any of claims 9 to 12, characterized in that the polymerization is effected on a moving support.
14. The process according to any of claims 9 to 13, characterized in that the polymer composition is powdered subsequent to polymerization.

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